Operating Instructions and Parts Manual
Metal Dust Collector
Model JDC-500



WALTER MEIER (Manufacturing) Inc.

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1.0 **Warranty and service**

Walter Meier (Manufacturing) Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

MORE INFORMATION

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local Walter Meier distributor, or visit waltermeier.com.

WARRANTY

JET products carry a limited warranty which varies in duration based upon the product (MW = Metalworking, WW = Woodworking).

90 DAY WARRANTY	1 YEAR WARRANTY	2 YEAR WARRANTY	3 YEAR WARRANTY	5 YEAR WARRANTY	LIFETIME WARRANTY
Lathe Accessories Machine Accessories Mobile Bases Safety Equipment Specialty Items Vise Accessories	Air Tools-Contractor Air Tools-Industrial Air Tools-Light Industrial Lubrication	Body Repair Kits Bottle Jacks Cable Pullers Cold Saws Hoists-Air Hoists-Electric Metal forming Mill/Drills Milling Machines MW Bandsaws MW Drill Presses MW Finishing Equipment MW Lathes MW Precision Vises Palet Trucks Rigging Equip. Service Jacks Stackers Surface Grinders Tapping Trolleys-Air Trolleys-Electric Web Slings Winches-Electric	WW Benchtop Tools	Beam Clamps Chain Hoist-Manual Lever Hoists Pullers-JCH Models Scissor Lift Tables Screw Jacks Trolleys-Geared Trolleys-Plain Winches-Manual WW Air Filtration WW Bandsaws WW Buffers WW Drill Presses WW Dust Collectors WW Dust Filters WW Dust Fittings WW Jointers WW Lathes WW Planers WW Sanders WW Shapers WW Tablesaws	Fastening Tools Mechanics Hand Tools Striking Tools Vises (no -precision) Clamps

Warranty reverts to 1 Year Warranty if woodworking (WW) products listed above are used for industrial or educational purposes.

WHAT IS COVERED?

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

WHO IS COVERED?

This warranty covers only the initial purchaser of the product.

WHAT IS THE PERIOD OF COVERAGE?

The general JET warranty lasts for the time period specified in the product literature of each product.

WHAT IS NOT COVERED?

Five Year Warranties do not cover woodworking (WW) products used for commercial, industrial or educational purposes. Woodworking products with Five Year Warranties that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

HOW TO GET SERVICE

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option. We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

HOW STATE LAW APPLIES

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

LIMITATIONS ON THIS WARRANTY

WALTER MEIER (MANUFACTURING) INC., LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

WALTER MEIER SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Walter Meier sells through distributors only. The specifications in Walter Meier catalogs are given as general information and are not binding. Members of Walter Meier reserve the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever. JET® branded products are not sold in Canada by Walter Meier.

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3.0 **Safety warnings**

1. Read and understand the entire owner's manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace the warning labels if they become obscured or removed.
4. Do not use this metal dust collector for other than its intended use. If used for other purposes, Walter Meier (Manufacturing) Inc., disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
5. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
    - Lead from lead based paint.
    - Crystalline silica from bricks, cement and other masonry products.
    - Arsenic and chromium from chemically treated lumber.

    Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.
6. Make certain the switch is in the OFF position before connecting the machine to the power supply.
7. Wear approved safety glasses/face shields while using and cleaning this machine. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
8. Wear ear protectors (plugs or muffs) during extended periods of operation.
9. Make certain the machine is properly grounded.
10. Make all machine adjustments or maintenance with the machine unplugged from the power source.
11. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
12. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately after completion of maintenance.
13. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
14. Provide for adequate space surrounding work area and non-glare, overhead lighting.
15. Keep the floor around the machine clean and free of scrap material, oil and grease.
16. Keep visitors a safe distance from the work area. Keep children away.
17. Make your workshop child proof with padlocks, master switches or by removing starter keys.
18. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
19. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and more safely.
20. Use recommended accessories; improper accessories may be hazardous.
21. Maintain tools with care. Follow instructions for lubricating and changing accessories.
22. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
23. Do not stand on the machine. Serious injury could occur if the machine tips over.
24. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
25. Remove loose items and unnecessary work pieces from the area before starting the machine.
26. Do not use this machine in damp or wet locations, or expose it to rain. Keep work area well lighted.
27. Do not use this dust collector to pick up flammable or combustible liquids, and do not use it in explosive environments.

28. Do not use the dust collector to dissipate fumes or smoke. Never pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.

29. Do not insert fingers or foreign objects into the inlet ports. Keep hair, loose clothing, and all body parts away from openings and moving parts of the dust collector.

30. Do not unplug the machine by pulling on the power cord – grasp the plug, not the cord.

31. Do not pull the machine by the power cord, or allow the power cord to contact sharp edges or hot surfaces. Replace a damaged cord immediately.

Familiarize yourself with the following safety notices used in this manual:

CAUTION This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

WARNING This means that if precautions are not heeded, it may result in serious injury or possibly even death.

4.0 About this manual

This manual is provided by Walter Meier (Manufacturing) Inc. covering the safe operation and maintenance procedures for a JET Model JDC-500 Metal Dust Collector. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide years of trouble-free operation if used in accordance with instructions as set forth in this document.

If there are questions or comments, please contact your local supplier or Walter Meier. Walter Meier can also be reached at our web site: www.waltermeier.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

WARNING **Read and understand the entire contents of this manual before attempting assembly or operation. Failure to comply may cause serious injury.**

5.0 **Specifications**

Model number JDC-500
Stock numbers:
Dust collector..414700
Replacement filters (set of 2)..414705

Motor and electricals:
Motor type .... totally enclosed fan cooled, induction, capacitor start
Horsepower ....1.5 HP (1.1 kW)
Phase.. single
Voltage... 115/230V (prewired 115V)
Cycle..60Hz
Listed FLA (full load amps)...15A(115V) / 7.5A(230V)
Start capacitor 300MFD/ 125VAC
Run capacitor 30µf/250V
On/off switch .... magnetic, with removable safety key
Motor speed 1450RPM
Power cord length...6 ft. (183 cm)
Power plug installed..yes
Recommended circuit size[1] .... 20A for 115V; 15A for 230V
Recommended fuse/breaker size[1] .... 30A for 115V; 20A for 30V
Noise emission .... 75 dB at 5 ft. (152.4 cm) from fan

Materials:
Cabinet ....steel
Impeller and housing.. aluminum (non-sparking)
Casters .... polyurethane
Filters.. micro steel mesh

Other:
Maximum capacity .... 490 cfm (13.88 cmm)
Maximum hose velocity...5610 fpm (1710 mpm)
Number of filters 2
Filter size...19"L x 9.5"w x 2"Thk (483 x 241 x 51 mm)
Filter efficiency ....99% of 5 micron particles
Number of dust ports 2
Dust port outside diameter ....4" (100 mm)
Dust port outside diameter with adaptor.. 2" (50 mm)
Casters .... 2-1/2" (64 mm) diameter, swivel

Dimensions:
Dimensions, shipping..32" L x 28"W x 30.9"H (813 x 711 x 785 mm)
Dimensions, assembled ....30.5"L x 31.5"W x 31.5"H (775 x 800 x 800 mm)
Impeller diameter..11" (279 mm)

Weights:
Net.. 157 lb (71 kg)
Shipping... 192lb (87.2kg)

[1] *subject to local and national electrical codes.*

The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, Walter Meier (Manufacturing) Inc., reserves the right to change specifications at any time and without prior notice, without incurring obligations.

6.0 Setup and assembly

Carton contents:

1 Dust Collector
2 4” to 3” adaptors
2 Filters (pre-installed)
4 Caster assemblies
16 Washer Head Screws, 5/16” x 1/2"
1 Open End Wrench, 10-12mm

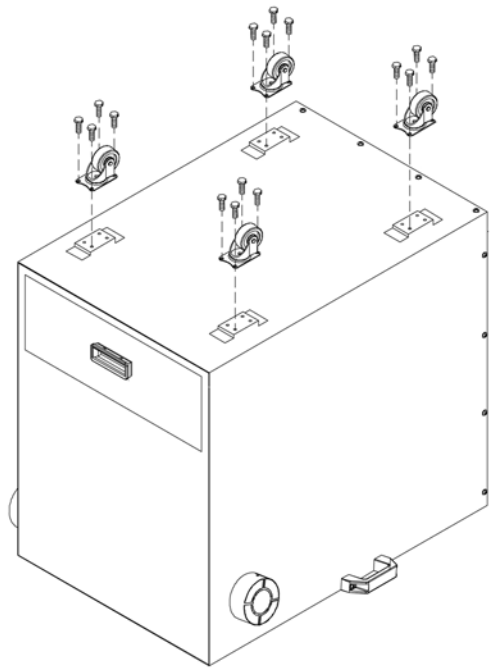


Figure 1

1. Turn dust collector upside down, with help from an assistant. Assemble casters to plates with the washer head screws. See Figure 1.

7.0 Electrical connections

The JDC-500 Dust Collector is rated at 115/230V power, pre-wired for 115 volt, and supplied with a plug.

Before connecting to power source, be sure switch is in *off* position.

It is recommended that the dust collector, when operated on **115 volt power**, be connected to a dedicated 20 amp circuit with a 30 amp circuit breaker or time-delay fuse marked “D”. When operated on **230 volt power**, it is recommended that the dust collector be connected to a dedicated 15 amp circuit with a 20 amp circuit breaker or time-delay fuse marked “D”. **Local codes take precedence over recommendations.**

7.1 Grounding instructions

1. All Grounded, Cord-connected Tools:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

WARNING **Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Failure to comply may cause serious or fatal injury.**

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating ***less than 150*** *volts:*

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **A,** Figure 2. An adapter, shown in **B** and **C**, may be used to connect this plug to a 2-pole receptacle as shown in **B** if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. *This adapter is not permitted in Canada.* The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating between ***150 - 250 volts****, inclusive:*

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **D,** Figure 2. The tool has a grounding plug that looks like the plug illustrated in **D**. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this tool. If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.

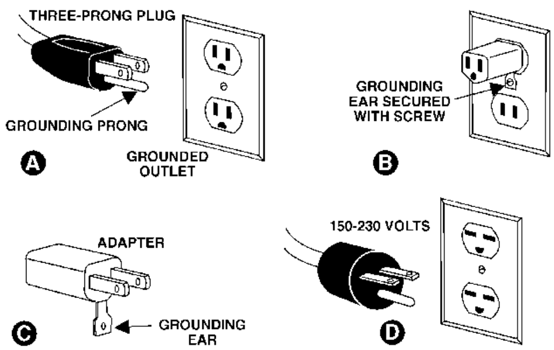


Figure 2

7.2 Voltage conversion

To switch the incoming power leads for 230 volt operation, follow the wiring diagram on the inside cover of motor junction box. To access junction box, remove filters and cover (part #1, *section 10.1.1*).

The plug on the end of the motor cord must be replaced with a UL/CSA listed plug rated for 240V.

7.3 Extension cords

The use of extension cords is discouraged. Try to place equipment within reach of the power source. If an extension cord is necessary, make sure it is in good condition and heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Ampere Rating		Volts	Total length of cord in feet			
More Than	Not More Than	120 240	25 50	50 100	100 200	150 300
			AWG			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

Extension Cord Recommendations
Table 1

8.0 Operation

8.1 Control switch

Refer to Figure 3.

The green pilot lamp (A) will be illuminated **whenever there is power connected** to the dust collector, not just when the machine is running. *Do not assume that no light means there is no power to the machine.* If the bulb is bad, there will be no indication. Always check before use.

Pull out on switch (B) to start machine. Push switch in to stop.

The safety key (C) prevents unauthorized use of the machine. Remove this key to deactivate the switch; insert it to restart.

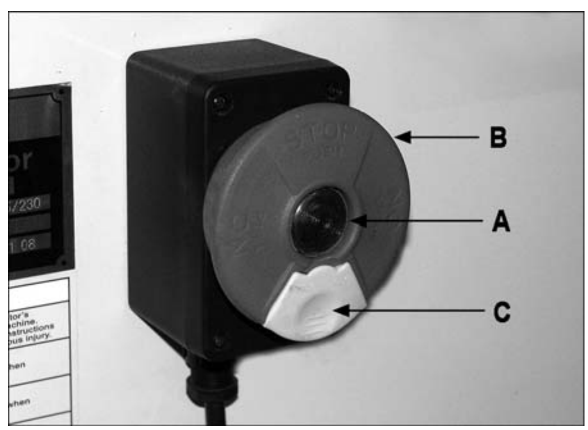


Figure 3

9.0 **Maintenance**

Periodically empty the chip drawer, and clean out the interior of the dust collector.

Keep the fan end of the motor clear of dust and debris.

Replace filters after *maximum* 800 hours of use. See Figure 4.

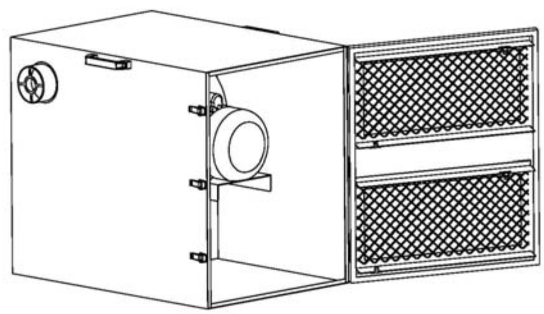
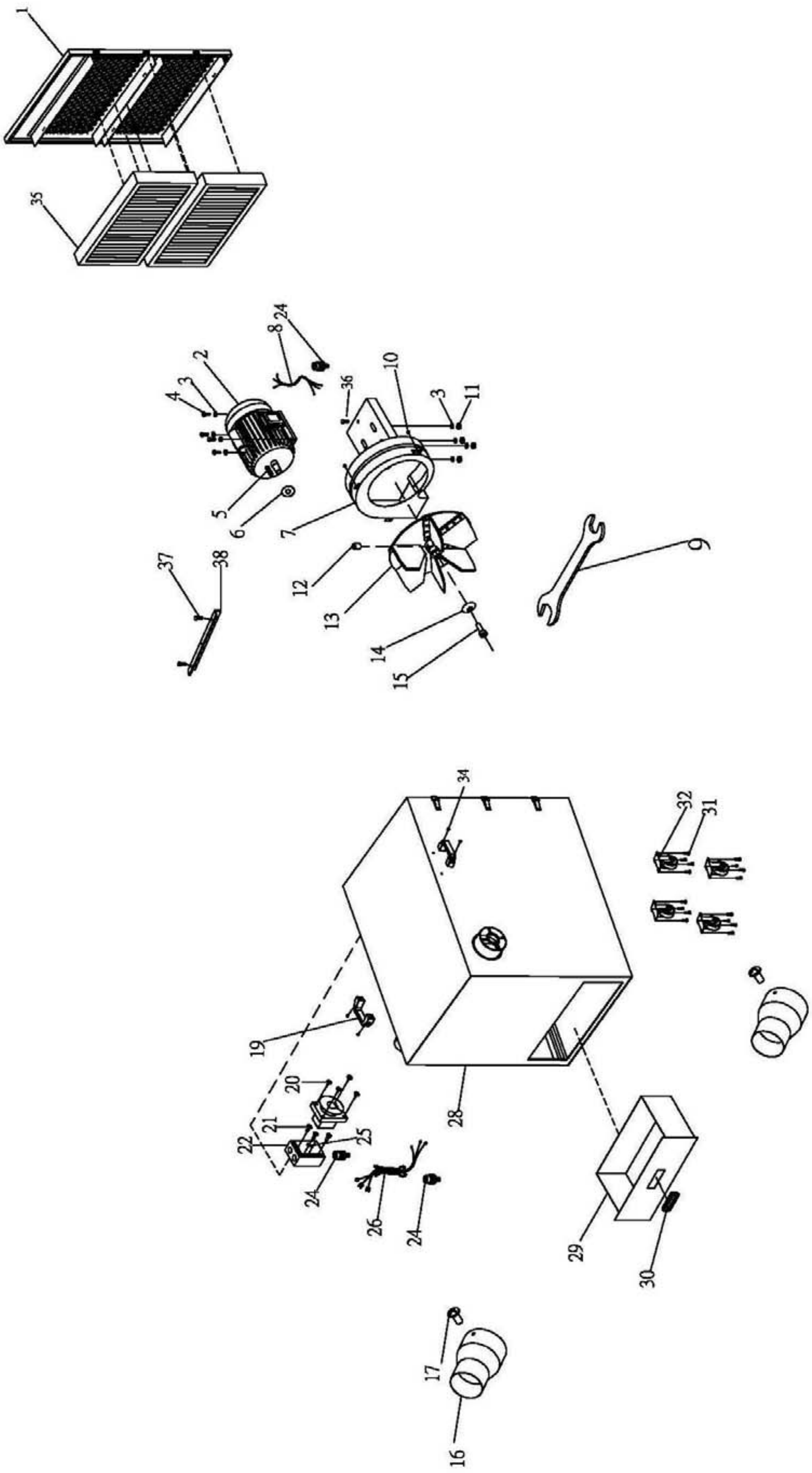


Figure 4

10.0 **Replacement Parts**

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday (see our website for business hours, www.waltermeier.com). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

10.1.1 **JDC-500 Dust Collector – Exploded View**

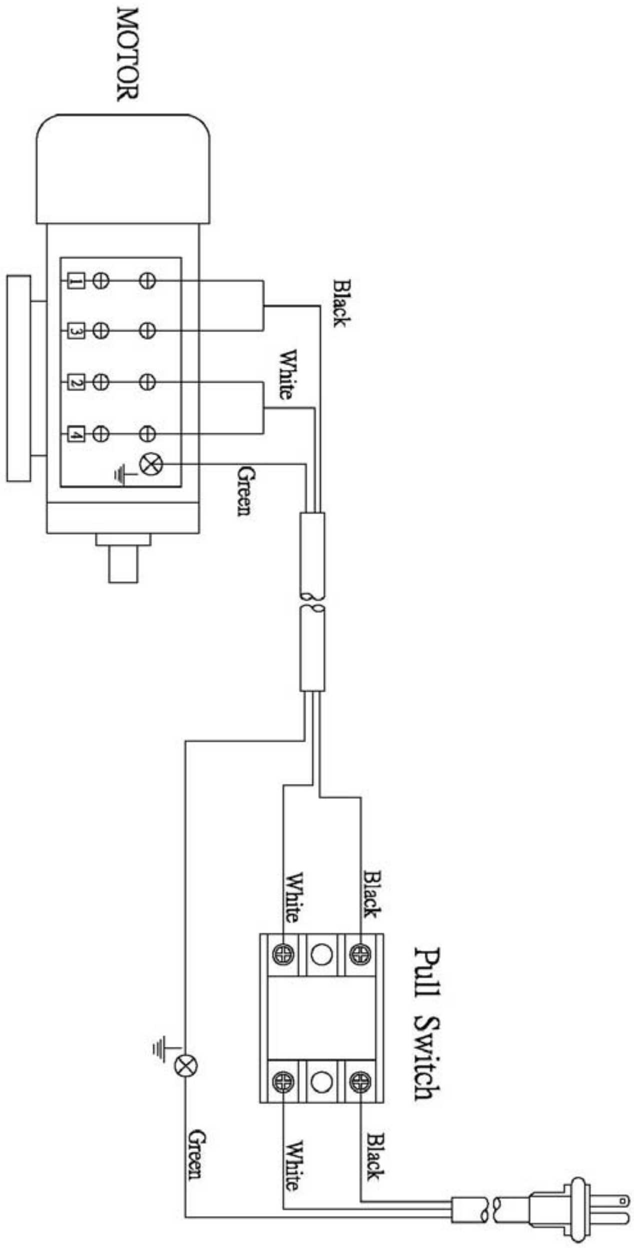


10.1.2 **JDC-500 Dust Collector – Parts List**

Index No	Part No	Description	Size	Qty
1	JDC-500001	Front Cover		1
	JDC-500001A	Front Cover *(serial no 1210047 & higher)*		1
2	JDC-500002	Motor	1.5HP 115/230V	1
	JDC-500002-MF	Motor Fan (not shown)		1
	JDC-500002-MFC	Motor Fan Cover (not shown)		1
	JDC-500002-JB	Junction Box with cover (not shown)		1
	JDC-500002-SC	Start Capacitor	125VAC/300MFD	1
	JDC-500002-RC	Run Capacitor	250VAC/30µf	1
3	TS-0680031	Flat Washer	5/16″	8
4	TS-0051051	Hex Cap Screw	5/16″x1″	1
5	JDC-500005	Key	6x6x25 mm	1
6	JDC-500006	Motor Packing		1
7	JDC-500007	Canister Housing		1
8	JDC-500008	Motor Cord		1
9	GH1340A-TBCP-16-04	Open End Wrench	10/12mm	1
10	TS-1533032	Pan Head Screw	M5x10	3
11	TS-0570021	Hex Nut	5/16″	4
12	JDC-500012	Set Screw	5/16″x5/16″	1
13	JDC-500013	Impeller	Ø11″	1
14	JDC-500014	Washer		1
15	TS-1503051	Socket Head Cap Screw	M6x20	1
16	JDC-500016	Hose Adaptor	4″ to 3″	2
	JDC-500016A	Hose Adaptor *(serial no 1210047 & higher)*	4” to 2”	2
	JDC-500016B	Hose Adaptor *(serial no xxxx067 & higher)*	3” to 2”	2
17	JDC-500017	Phillips Head Screw	3/16″x3/8″	2
19	JDC-500019	Handle		2
20	JDC-500020	Tapping Screw		4
21	JDC-500021	Phillips Head Screw	3/16″x3/8″	3
22	JDC-500022	Pull-Out Switch		1
	JDC-500022-SC	Safety Key		1
24	JDC-500024	Strain Relief	PG-16	3
25	JDC-500025	External Tooth Lock Washer	3/16″	1
26	JDC-500026	Power Cord		1
28	JDC-500028	Main Housing		1
	JDC-500028A	Main Housing *(serial no 1210047 & higher)*		1
29	JDC-500029	Drawer		1
30	JDC-500030	Drawer Handle		1
31	JDC-500031	Washer Head Screw	5/16″x1/2″	16
32	JDC-500032	Swivel Caster	Ø 2-1/2″	4
34	JDC-500034	Phillips Head Screw	1/4″x5/8″	2
35	414705	Filter (set of 2)		2
36	TS-1482021	Hex Cap Screw	M6x12	1
37	TS-1482021	Hex Cap Screw	M6x12	2
38	JDC-500038	Bracket		1
	JETLOGO-1	JET Logo (not shown)	2-3/4″x8″	1
	STRIPE-1-3/4	JET Stripe (not shown)	1-3/4″W	per ft.
	JDC500-ID	I.D. Label (not shown)		1
	JDC500-CL	Caution Label (not shown)		1

11.0 **JDC-500 Dust Collector Wiring Diagram**

115 V



230 V

